

PETITION NO. 1056 - GRE 314 East Lyme, LLC declaratory	}	Connecticut
ruling that no Certificate of Environmental Compatibility and	}	
Public Need is required for the proposed construction and	}	Siting
operation of a 5.0 MW Solar Photovoltaic Renewable Energy	}	
Generating Project located on Grassy Hill Road and Walnut Hill	}	Council
Road, East Lyme, Connecticut.		

September 5, 2013

Development and Management Plan Staff Report

On **May 16**, 2013, the Connecticut Siting Council (Council) issued a Declaratory Ruling to GRE 314 East Lyme, LLC (GRE) that no Certificate of Environmental Compatibility and Public Need is required for the construction and operation of a 5.0 MW Solar Photovoltaic Project located on Grassy Hill Road and Walnut Hill Road, East Lyme, Connecticut. As required in the Council's Decision and Order, GRE submitted a Development and Management (D&M) Plan for this project on August 1, 2013. The D&M Plan included site drawings, project narrative, an Operations and Maintenance Program, and a Stormwater Management Plan. Initial staff review of the D&M Plan submittal required interrogatories to be filed with GRE to clarify certain project features. Responses were received on August 15, 2013. The Council approved the commencement of site clearing activities on August 22, 2013.

GRE will construct the facility on a 35 acre area, comprised of several parcels. Approximately 15-acres of the site is wooded with the remaining area consisting of several abandoned fields. A housing subdivision was previously approved for the site but was never constructed.

After the Council's **May 16**, 2013 approval, four site layout modifications were made, as follows:

- a. consistent with the Council's Decision and Order, the solar field will be accessed during construction and operation from the existing driveway at 40 Grassy Hill Road. A new gravel access way will be constructed off the existing driveway that will lead to northwest corner of the solar field;
- b. a cul de sac extends into the solar field area on the north side of the property that will serve future housing lots northwest of the solar field area, on property identified as 40 Grassy Hill Road;
- c. a narrow conservation easement, 20 feet wide and 300 feet long, extends into the eastern portion of the solar field. This area is recorded in the land records as part of the previous subdivision approval; and,
- d. the project no longer includes a wood frame educational/storage building. Any required maintenance equipment will be brought to the site from off-site locations.

As a result of these site layout modifications, 16,874 solar panels will be installed rather than the 17,842 that was presented in the original petition; however, no decrease in the projects output is expected as the efficiency of the solar modules has increased since the petition was originally filed. Two types of fixed solar panels will be used at the site; Yingli 300 W and EcoSolargy Titan 280 W. The solar panels will be arranged into three different electrical systems, served by a total of four inverters. Utility cabinets would be located west of the solar field, on property at 89 Walnut Hill Road. Overhead lines would connect the utility cabinets to a distribution pole on Walnut Hill Road.

Site plans depict construction erosion and control features consistent with the 2002 *Connecticut Guidelines for Soil Erosion and Sediment Control*. The limit of construction will be enclosed by a silt sox barrier. On-site soil stockpiles will be seeded, mulched with hay and be surrounded by a silt sox barrier. Six temporary sediment basins will be installed during construction. Temporary swales will feature check dams and erosion control mats. An anti-tracking pad will be established and maintained at the construction entrance.

After construction, exposed soil areas will be sown with certain seed mixes, as follows: a no mow mix in the solar field; a conservation mix in open areas; a wetland mix in the detention basins, and a dry soil mix on the berms.

Once grading is complete, the site will slope from west to east, losing 30 feet in elevation, so that runoff is directed into drainage features along the east edge of the solar field. The drainage system features swales to direct water into four detention basins and four leaky berms. The detention basins will have a catch basin at the bottom that will direct water in a controlled manner onto rip-rap lined outlets. The leaky berms are soil berms with a gravel base so that water will percolate through the down gradient side of the berm and disperse overland. All drainage features will be located 100 feet from identified wetlands east of the project site. GRE will conduct regular inspections of the drainage features and clean and properly dispose of accumulated materials.

GRE reconfigured the earthen berm in the southwest corner of the solar field area to move it away from the adjacent property line as much as possible. The 12 to 16-foot tall berm is approximately 40 feet from the property line rather than immediately adjacent to it. The berm will be stabilized with an erosion control mat overlain with wood chips.

A six-foot high chain link fence would be installed along the perimeter of the solar field where it does not abut adjacent residences. In areas where the solar field abuts residential properties, a six-foot high wood stockade fence will be installed along the perimeter. Six separate gates will be constructed along the fence line. The main entrance will be from the driveway at 40 Grassy Hill Road. A variety of shrubs and trees would be planted between the fence line and abutting properties for additional screening. Existing stonewalls scattered throughout the site will be removed and stockpiled for reconstruction along select edge areas of the solar field.

GRE intends to begin work immediately and plans to complete construction in May 2014. Anticipated construction work hours are from 6:00 a.m. to sunset, Monday through Saturday.

A Decommissioning Plan is included in the D&M Plan and specifies funding over 10 years for the anticipated cost of salvaging equipment and restoring the site. All components will be removed and disposed of or recycled appropriately. Underground cables buried to a depth of two feet or more will be left in place unless future property development necessitates their removal. The topsoil will be collected, screened, seeded and distributed across the site.

The D&M Plan, as amended, conforms to the Council's Decision and Order and with the scope of the project described during this petition's proceedings.